

## CLAIMS

1. A method of inducing new hair growth or retarding hair loss, comprising:  
administering to a subject in need thereof substance P or a bioactive analog thereof selected from the group consisting of [Met-OH<sup>11</sup>]-substance P, [Met-OMe<sup>11</sup>]-substance P, [Nle<sup>11</sup>]-substance P, [Pro<sup>9</sup>]-substance P, [Sar<sup>9</sup>]-substance P, [Tyr<sup>8</sup>]-substance P, [p-Cl-Phe<sup>7,8</sup>]-substance P, [Sar<sup>9</sup>,Met (O<sub>2</sub>)<sup>11</sup>]-substance P, and analogs having the amino acid backbone RPKPQQFFGLM-NH<sub>2</sub>, whereby new hair growth is induced or hair loss is retarded.
2. The method of claim 1 wherein the subject lost hair due to chemotherapy.
3. The method of claim 1 wherein the subject loss hair due to radiation exposure.
4. The method of claim 1 wherein the subject lost hair due to illness.
5. The method of claim 1 wherein a bioactive analogue is administered.
6. The method of claim 5 wherein the bioactive analogue is [Sar<sup>9</sup>, Met (O<sub>2</sub>)<sup>11</sup>]-substance P.
7. The method of claim 1 wherein the substance P analog or bioactive analog is administered as an aerosol.
8. The method of claim 7 wherein the concentration of substance P or the bioactive analogue in the administered aerosol is between 0.001 and 50  $\mu$ M.
9. The method of claim 7 wherein the concentration of substance P or the bioactive analogue in the administered aerosol is between 0.05 and 10  $\mu$ M.
10. The method of claim 7 wherein the concentration of substance P or the bioactive analogue in the administered aerosol is between about 0.1 and 5  $\mu$ M.
11. The method of claim 1 wherein the substance P or bioactive analog is administered topically.

12. The method of claim 1 wherein the substance P or bioactive analog is administered subcutaneously.
13. The method of claim 1 wherein the substance P or bioactive analog is administered transdermally.
14. The method of claim 1 wherein Substance P is administered to the subject.
15. The method of claim 1 wherein a Substance P analog which has the amino acid backbone RPKPQQFFGLM-NH<sub>2</sub> is administered to the subject.